

इंटरनेट

मानक

Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 5858-3 (1970): Accessories to Mechanical Ventilation Systems on Board Ships, Part III: Control Dampers [TED 17: Shipbuilding]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

BLANK PAGE



IS : 5858 (Part III) - 1970

Indian Standard (Reaffirmed 2002)

**SPECIFICATION FOR
ACCESSORIES TO MECHANICAL VENTILATION
SYSTEMS ON BOARD SHIPS
PART III CONTROL DAMPERS**

(First Reprint JUNE 1989)

UDC 629.12.06.628.3:621.646.3

© Copyright 1971

**BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002**

Indian Standard

SPECIFICATION FOR ACCESSORIES TO MECHANICAL VENTILATION SYSTEMS ON BOARD SHIPS PART III CONTROL DAMPERS

Shipbuilding Sectional Committee, EDC 56

Chairman

SHRI S. PARMANANDHAN

Representing

Indian Navy

Members

CDR S. P. AGARWALA	Ministry of Defence (DGI)
SHRI N. BALASUBRAMANIAM	Volta Ltd, Bombay
SHRI R. S. MITAL (Alternate)	
SHRI P. K. BANERJEE	The Institute of Marine Engineers, Bombay
SHRI K. K. BANERJEE (Alternate)	
SHRI A. S. BONDALE	Garden Reach Workshops Ltd, Calcutta
SHRI N. CHAKRAVARTI	The Institute of Marine Engineers, Bombay
SHRI S. A. H. RIZVI (Alternate)	
CHIEF MECHANICAL ENGINEER, THE COMMISSIONERS FOR THE PORT OF CALCUTTA	Inter Port Consultations Secretariat Cell, Calcutta
CHIEF MECHANICAL ENGINEER, BOMBAY PORT TRUST (Alternate)	
SHRI P. L. D'ABREO	The Institute of Marine Engineers, Bombay
SHRI V. V. JAMES (Alternate)	
SHRI V. G. DAMLE	AFCO Ltd, Bombay
SHRI R. D. PARALKAR (Alternate)	
SHRI B. HILL	Lloyd's Register of Shipping, Calcutta
SHRI D. B. IRANI	Directorate General of Shipping (Ministry of Par- liamentary Affairs, Shipping and Transport), Bombay
SHRI S. KASTHURI	The Institute of Marine Engineers, Bombay
SHRI PARTAP CHANDRA KUMAR	The Institute of Marine Engineers, Bombay
SHRI V. K. DESAI (Alternate)	
SHRI G. K. KURIYAN	Central Institute of Fisheries Technology, Ernakulam
SHRI M. VELU (Alternate)	
SHRI KJELL LINDH	SF India Ltd, Calcutta
SHRI G. SINHA (Alternate)	
SHRI K. N. G. MENON	The Shipping Corporation of India Ltd, Bombay; and The Institute of Marine Engineers, Bombay
CAPT R. D. KOHLI (Alternate)	The Shipping Corporation of India Ltd, Bombay
SHRI B. S. SOOD (Alternate)	The Institute of Marine Engineers, Bombay

(Continued on page 2)

(Continued from page 1)

Members

SHRI I. N. PRADHAN
DR T. S. RAGHUBAM
SHRI T. S. RAJAN
SHRI ANJAN ROYE

SHRI K. N. G. MENON (*Alternate*)

SHRI E. R. DASTOOR (*Alternate*)

SHRI D. S. SHETH Hindustan Shipyard Ltd, Visakhapatnam

SHRI M. G. KUTTY (*Alternate*)

SHRI T. N. SUJAN

SHRI S. S. TOMAR

SHRI M. V. PATANKAR,

Director (Mech Engg)

Representing

The Indian National Shipowners' Association, Bombay

Indian Engineering Association, Bombay

Ericson & Richards, Bombay

Institution of Marine Technologists, Bombay

Hindustan Shipyard Ltd, Visakhapatnam

Larsen & Toubro Ltd, Bombay

Directorate General of Technical Development

Director General, ISI (*Ex-officio Member*)

Secretary

SHRI K. S. SUBRAMANIAM

Officer on Special Duty (Mech Engg), ISI

Marine Ventilation Subcommittee, EDC 56:2

Convener

SHRI D. B. IRANI

Representing

Directorate General of Shipping (Ministry of Parliamentary Affairs, Shipping and Transport), Bombay

Members

SHRI N. BALASUBRAMANIAM

Voltas Ltd, Bombay

SHRI R. S. MITAL (*Alternate*)

DIRECTOR OF NAVAL CONSTRUCTION

Indian Navy

SHRI K. M. KAR

American Refrigerator Company Ltd, Calcutta

SHRI KUMAR RAY (*Alternate*)

SHRI M. G. KUTTY

Hindustan Shipyard Ltd, Visakhapatnam

SHRI C. M. RAO (*Alternate*)

SHRI B. V. RAO

SF India Ltd, Calcutta

SHRI G. SINHA (*Alternate*)

CDR A. N. THURKAL

Mazagaon Dock Ltd, Bombay

SHRI R. K. JASUJA (*Alternate*)

Indian Standard

SPECIFICATION FOR ACCESSORIES TO MECHANICAL VENTILATION SYSTEMS ON BOARD SHIPS PART III CONTROL DAMPERS

0. FOREWORD

0.1 This Indian Standard (Part III) was adopted by the Indian Standards Institution on 30 December 1970, after the draft finalized by the Ship-building Sectional Committee had been approved by the Mechanical Engineering Division Council.

0.2 Control dampers are used for balancing the ventilation systems by regulating the quantity of air in the various branches to meet the design throughputs.

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS:2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard (Part III) specifies the material and the dimensions for control dampers for use with mechanical ventilation systems on board ships.

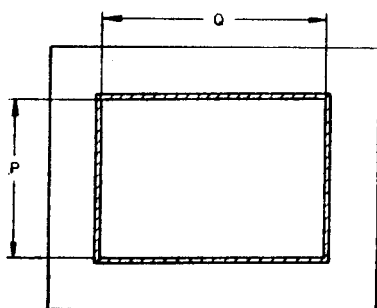
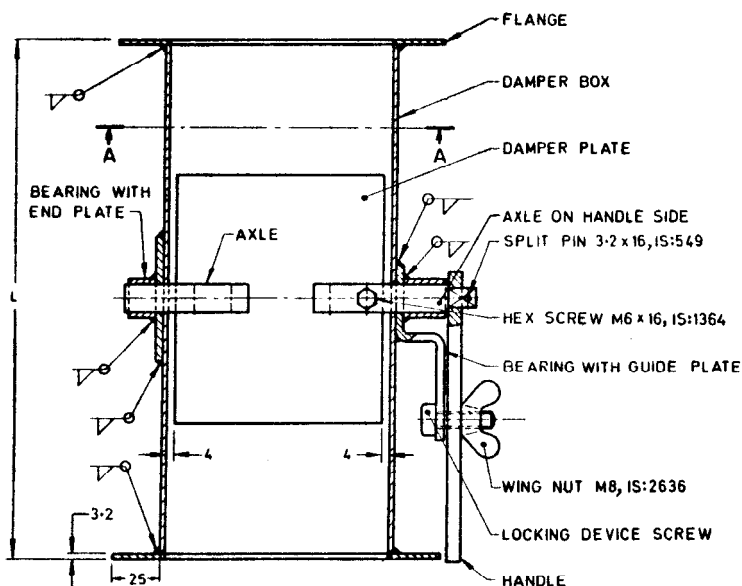
2. NOMENCLATURE

2.1 The nomenclature as shown in Fig. 1 and 3 shall apply.

3. TYPE AND CONSTRUCTION

3.1 The control dampers shall be of two types, namely, Type A and Type B. The construction of the two types shall be as shown in Fig. 1 to 4.

*Rules for rounding off numerical values (*revised*).



SECTION AA

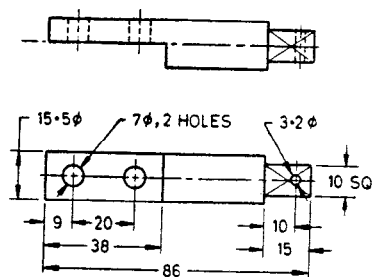
NOTE—Damper plate shall have 4 mm clearance all around when fitted in position.

Dimensions P and Q are to suit the duct dimensions.

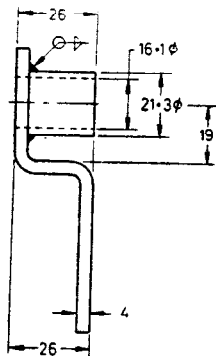
Dimension L depends on the location.

All imensions in mdillimetres.

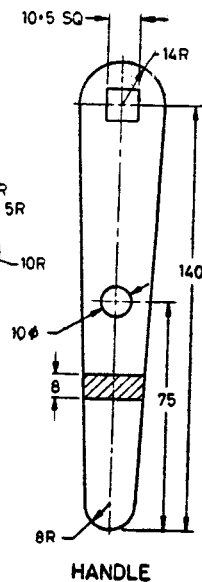
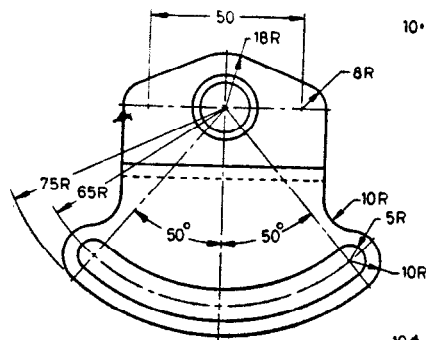
FIG. 1 ASSEMBLY FOR CONTROL DAMPER (TYPE A)



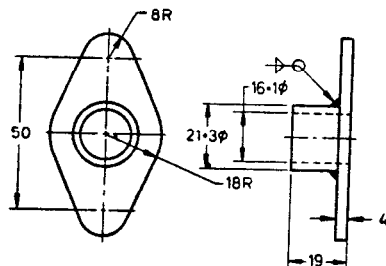
AXLE ON HANDLE SIDE



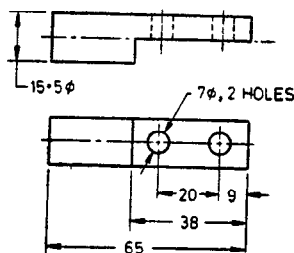
BEARING WITH GUIDE PLATE



HANDLE



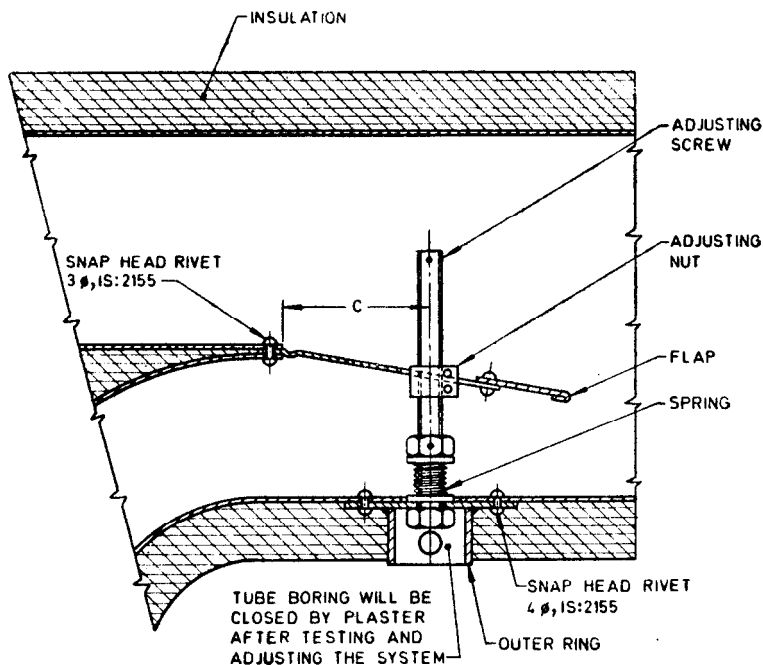
BEARING WITH END PLATE



AXLE

All dimensions in millimetres.

FIG. 2 DIMENSIONS OF DETAILS FOR CONTROL DAMPER (TYPE A)



All dimensions in millimetres.

FIG. 3 ASSEMBLY FOR CONTROL DAMPER (TYPE B)

4. MATERIAL

4.1 The material used in the construction of control dampers shall be as given below :

<i>Name of Part</i>	<i>Material</i>	<i>Relevant Indian Standard</i>
Flap	Galvanized sheet	IS : 277-1969*
Bearing and guide plate	Steel	IS : 1079-1968†
Handle	Steel	IS : 3747-1966‡
Axle	Steel	IS : 2073-1962§
Packing	Asbestos tape	IS : 4687-1968¶

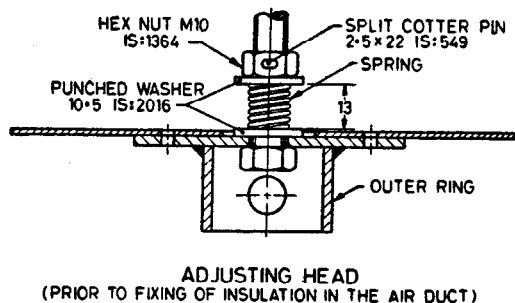
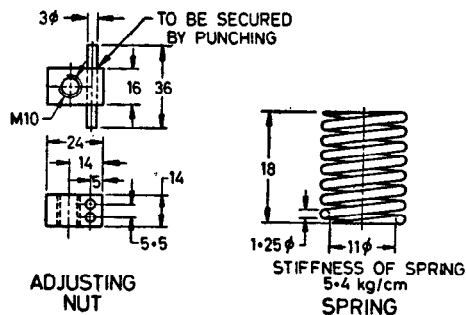
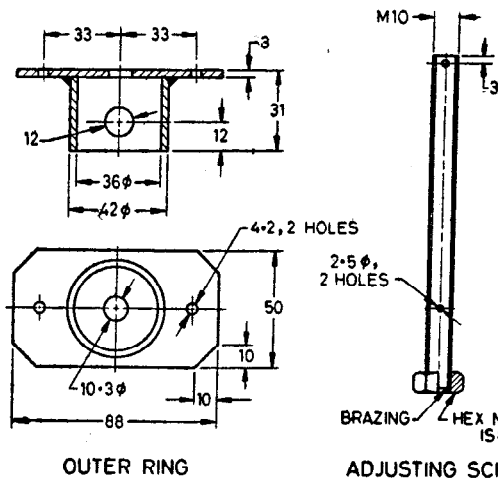
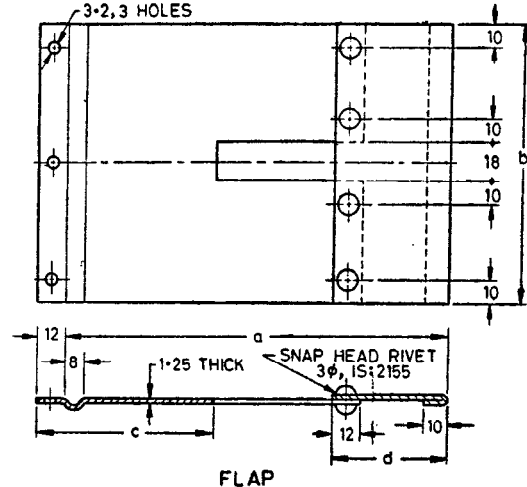
*Specification for galvanized steel sheets (plain and corrugated) (*second revision*).

†Specification for hot rolled carbon steel sheet and strip (*second revision*).

‡Specification for steel for flanging and pressing.

§Specification for carbon steel bars for production of machined parts for general engineering purposes.

¶Specification for gland packing asbestos.



Dimensions a, b, c and d are to suit the duct dimensions.

All dimensions in millimetres.

FIG. 4 DIMENSIONS OF DETAILS FOR CONTROL DAMPER (TYPE B)

5. DIMENSIONS AND TOLERANCES

5.1 The dimensions of control dampers shall be as given in Fig. 1 to 4.

5.2 The dimensions $P \times Q$ for Type A and a, b, c and d for Type B of the flap shall conform to those of air ducts to which they are fitted. These dimensions shall be specified by the purchaser.

5.3 The tolerances of machined parts shall be of coarse series conforming to IS : 2102-1969*.

6. DESIGNATION

6.1 Control dampers shall be designated by the title, type, dimensions $P \times Q$ for Type A or $a \times b \times c \times d$ for Type B, and the number of this standard.

Example:

Control damper of Type B and dimensions a, b, c and d shall be designated as:

Control Damper B $a \times b \times c \times d$ IS: 5858 (Part III)

7. WORKMANSHIP

7.1 The workmanship shall be of the highest order and conform to best manufacturing process.

8. TESTS

8.1 Control dampers shall be visually examined for proper operation by hand.

*Allowable deviations for dimensions without specified tolerances (*first revision*).

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

Telephones: 331 01 31, 331 13 75

Telegrams: Manaksanstha
(Common to all Offices)

Regional Offices:

	Telephone
Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002	{ 331 01 31 331 13 75
*Eastern : 1/14 C. I. T. Scheme VII M, V. I. P. Road, Maniktola, CALCUTTA 700054	36 24 99
Northern : SCO 445-446, Sector 35-C, CHANDIGARH 160036	{ 2 18 43 3 16 41
Southern : C. I. T. Campus, MADRAS 600113	{ 41 24 42 41 25 19 41 29 16
†Western : Manakalaya, E9 MIDC, Marol, Andheri (East), BOMBAY 400093	6 32 92 95

Branch Offices:

'Pushpak', Nurmohamed Shaikh Marg, Khanpur, AHMADABAD 380001	{ 2 63 48 2 63 49
‡Peenya Industrial Area 1st Stage, Bangalore Tumkur Road BANGALORE 560058	{ 38 49 55 38 49 56
Gangotri Complex, 5th Floor, Bhadbhada Road, T. T. Nagar, BHOPAL 462003	6 67 16
Plot No. 82/83, Lewis Road, BHUBANESHWAR 751002	5 36 27
53/5, Ward No. 29, R.G. Barua Road, 5th Byelane, GUWAHATI 781003	3 31 77
5-56 C. L. N. Gupta Marg (Nampally Station Road), HYDERABAD 500001	23 10 83
R14 Yudhister Marg, C Scheme, JAIPUR 302005	{ 6 34 71 6 98 32
117/418 B Sarvodaya Nagar, KANPUR 208005	{ 21 68 76 21 82 92
Patliputra Industrial Estate, PATNA 800013	6 23 05
T.C. No. 14/1421, University P.O., Palayam TRIVANDRUM 695035	{ 6 21 04 6 21 17

Inspection Offices (With Sale Point):

Pushpanjali, First Floor, 205-A West High Court Road, Shankar Nagar Square, NAGPUR 440010	2 51 71
Institution of Engineers (India) Building, 1332 Shivaji Nagar, PUNE 411005	5 24 35

*Sales Office in Calcutta is at 5 Chowringhee Approach, P. O. Princep Street, Calcutta 700072

†Sales Office in Bombay is at Novelty Chambers, Grant Road, Bombay 400007

‡Sales Office in Bangalore is at Unity Building, Narasimharaja Square, Bangalore 560002